

30. (Amended) A DNA fragment comprising a nucleotide sequence according to claim 23.

34. (Amended) An isolated *Helicobacter felis* urease X subunit polypeptide, said polypeptide comprising an amino acid sequence that is at least 85% homologous to SEQ ID NO: 2, or an immunogenic fragment of said polypeptide having a length of at least 40 amino acids, wherein said immunogenic fragment induces an immune response against ureaseXY.

38. (Amended) The polypeptide of claim 37, wherein said amino acid sequence is at least 94% homologous to SEQ ID NO: 2, or an immunogenic fragment of said polypeptide which induces an immune response against ureaseXY.

40. (Amended) An isolated *Helicobacter felis* urease Y subunit polypeptide, said polypeptide comprising an amino acid sequence that is at least 85% homologous to SEQ ID NO: 3, or an immunogenic fragment of said polypeptide having a length of at least 40 amino acids, wherein said immunogenic fragment induces an immune response against ureaseXY.

46. (Amended) A vaccine for combating *Helicobacter felis* infections, comprising an immunogenically effective amount of a nucleic acid molecule of claim 23, a DNA fragment of claim 30, a recombinant DNA molecule of claim 31, a live recombinant carrier

of claim 32, a host cell of claim 33 or a polypeptide according to claims 34 or 40, and a pharmaceutically acceptable carrier.

49. (Amended) The vaccine of claim 48, wherein said virus or microorganism pathogenic to mammals is selected from the group consisting of Feline Infectious Peritonitis virus, Feline Immune deficiency virus, Canine and Feline Parvovirus, Distemper virus, Adenovirus, Calicivirus, *Bordetella bronchiseptica*, *Borrelia burgdorferi*, *Leptospira interrogans*, *Chlamydia* and *Bartonella henseli*.